

The drawings are objected to under 37 C.F.R. 1.83 (a). A Request for Approval Drawing Corrections proposing red-line corrections to drawing figures 2(a) and 2(b) is filed herewith to obviate the objection. Withdrawal of the objection is respectfully requested.

Claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by Rood (U.S. Patent No. 4,715,733). The rejection is respectfully traversed.

Rood teaches an antifriction thrust bearing for orbital motion. The bearing includes a plurality of rollers disposed between two parallel plates. Each roller comprises two opposing cones joined at their base with one cone in rolling line contact with one plate and the other cone in rolling line contact with the other plate.

Claim 1 has been amended to depend from newly-added claim 24 that, for the reasons discussed below, recites features that are not taught or suggested in the applied art. Thus, claim 1 is allowable at least for the reasons newly-added claim 24 is allowable as well as for the features it recites.

Withdrawal of the rejection is respectfully requested.

Claims 3, 5, 7, 9 and 23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Rood as applied to claim 1 and further in view of Tanishiki. The rejection is respectfully traversed.

Tanishiki teaches a roller bearing and assembling method for the roller bearing. The roller bearing has double-cone rollers as rolling elements. The roller bearing includes a pair of bearing swivels, a plurality of track pockets and a connector for connecting and holding the pair of bearing swivels.

As discussed above, claim 1 is allowable because it depends from newly-added claim 24 that includes features not shown in the applied art. Therefore, it is respectfully submitted that claim 1 is allowable over the combination of these references.

Claims 3, 5, 7, 9 and 23 depend from claim 1 and include all of the features of claim 1. Therefore, the dependent claims are allowable at least for the reasons claim 1 is allowable as well as for the features they recite.

Withdrawal of the rejection is respectfully requested.

Claim 2 is rejected under 35 U.S.C. §103(a) as being unpatentable over Rood as applied to claim 1 and further in view of Tsutsui et al. (U.S. Patent No. 5,752,775). The rejection is respectfully traversed.

Claim 2 is canceled and therefore the rejection as applied to claim 2 is now moot.

Withdrawal of the rejection is respectfully requested.

Newly-added claim 24 includes features not shown in the applied art.

Claim 24 is directed to a scroll thrust bearing having a plurality of both-end conical rollers rotatably held between a pair of parallel bearing plates. Claim 24 recites that the both-end conical rollers are composed of conical bodies having a pair of conical surfaces matched coaxially, and a relation of a scroll swirl radius (R) and a dimension (H) between opposite tracks of the bearing plates is set in a relation of  $1 < H/R < 5$ . Claim 24 further recites that the conical surfaces of the both-end conical roller are crowned.

Furthermore, newly-added claim 24 includes the features of previously amended claim 1 and once amended claim 3. Thus, no further search and/or consideration is required for the examination the features of newly-added claim 24.

Furthermore, claim 24 is generic to all species. It is therefore respectfully requested that claims 4, 6, 8 and 10-22 having been withdrawn from consideration be rejoined to the application as a result thereof.

In view of the foregoing, reconsideration of the application and allowance of all of the pending claims are respectfully requested. Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

Should additional fees be necessary in connection with the filing of this paper or if a Petition for Extension of Time is required for timely acceptance of the same, the Commissioner is hereby authorized to charge Deposit Account No. 18-0013 for any such fees and Applicant(s) hereby petition for such extension of time.

Respectfully submitted,

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Enclosure(s): Appendix I (Marked-Up Version of Amended Claims)  
Petition for Extension of Time ( two months)  
Request for Approval of Drawing Corrections  
One (1) sheet of red-line corrected formal drawings (FIGS. 2(a) and 2(b))

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## **APPENDIX I**

### **(MARKED-UP VERSION OF AMENDED CLAIMS)**

1. (Twice Amended) ~~A The scroll thrust bearing having a plurality of both-end conical rollers rotatably held between a pair of parallel bearing plates of claim 24,~~  
wherein said ~~both-end conical rollers are composed of conical bodies having a pair of conical surfaces matched coaxially, and a relation of a scroll swirl radius (R) and a dimension (H) between opposite tracks of the bearing plates is set in a relation of  $1 < H/R < 5$~~  pair of conical surfaces of the both-end conical roller are bonded at the bottom with the bonded bottom of the both conical surfaces having a junction surface including an arc section continuous to the both conical surfaces, so that the contact length in a generator direction of the both conical surfaces to the track on the both bearing plates is minimized, a plurality of track pockets are provided oppositely to the pair of bearing plates, the both-end conical rollers are rotatably held in the opposing pair of track pockets.

5. (Amended) The scroll thrust bearing of claim 1, wherein ~~a plurality of track pockets are provided oppositely to the pair of bearing plates, the both-end conical rollers are rotatably held in the opposing pair of the track pockets, and the pair of bearing plates are linked and held by linking means in a relatively swirling state.~~